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# United States Patent Application

For

LASER OR INK JET PRINTABLE BUSINESS CARD SYSTEM

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LASER OR INK JET PRINTABLE BUSINESS CARD SYSTEM

## **Background of the Invention**

The present invention relates to methods of forming business cards and to the constructions of sheets of blank business cards for passing through laser or ink jet printers or copiers.

A sheet of business cards as known in the prior art is shown in FIG. 1 generally at 100. Sheet 100 is a drawing of the sheet after having passed through a laser or ink jet printer and with the desired indicia shown generally at 104 printed thereon. Sheet 100 was formed with a gridwork of horizontal and vertical microperforation lines 108, 110 extending the full length and width of the sheet. The microperforations are typically more than fifty per inch. Although the microperforations are thereby small and close together, when the cards 112, after the printing operation thereon, are separated from one another by tearing along the lines, perfectly clean cuts or edges do not result. Rather, the edges 114 are slightly fuzzy as shown in the enlarged view of FIG. 2. These fuzzy edges 114 give the card 112 a less professional look than clean knife cut edges and in certain uses are unacceptable.

#### **Summary of the Invention**

Directed to remedying the problems of the prior art, disclosed herein is an improved business card sheet assembly. The assembly includes a card stock sheet having two parallel pairs of substantial-cut lines extending the length of the sheet and engaging the sheet at both ends thereof. The substantial-cut lines extend about 90% through the thickness of the sheet from the front towards the back surface. The sheet is then die cut with short (through-cut) lines extending widthwise between the lines of each pair. The substantial-cut and through-cut lines form on the sheet two columns of business card blanks, with paper waste strips at the side (and end) margins and between the columns. The sheet is then passed through a laser or ink jet printer and the desired indicia printed

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on each of the blanks. The printed card blanks are separated from one another along the substantial-cut and through-cut lines. The borders or edges of the card are clean, superior to the prior art microperforated cards.

Other objects and advantages of the present invention will become more apparent to those persons having ordinary skill in the art to which the present invention pertains from the foregoing description taken in conjunction with the accompanying drawings.

### **Brief Description of the Drawings**

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- FIG. 1 is a front view of a sheet of business cards of the prior art, after having been printed, and showing one of them being torn away along its microperforation lines;
  - FIG. 2 is an enlarged view taken on circle 2 of FIG. 1;
- FIG. 3 is a perspective view showing sheet assemblies of the present invention passing through a printer;
- FIG. 4 is a front elevational view of one of the sheet assemblies of the present invention after a printing operation thereon;
  - FIG. 5 is an enlarged view taken on line 5-5 of FIG. 4; and
  - FIG. 6 is an enlarged view taken on line 6-6 of FIG. 4.

#### **Detailed Description of Preferred Embodiments of the Invention**

Referring to FIGS. 3-6 a sheet assembly of the present invention is shown generally at 130. The sheet assembly 130 is shown at the bottom left of FIG. 3 before entering the printer 134 and as it would be purchased by the user (after removal from its packaging (not shown)). The sheet assembly 130' is shown in the upper right of FIG. 3 and (in isolation) in FIG. 4 after having passed through the printer 134, and with the identifying indicia shown generally at 140 printed thereon. As an example, the indicia 140 can include the individual's name 142, address 144, title 146, company name 148 and company logo 150. It can additionally or alternatively include other information such as telephone and facsimile numbers and/or E-mail addresses as desired. The printer 134 can be a laser or ink jet printer, or photocopier.

The sheet assembly includes a sheet of paper 160 such as the ten mil thick cardstock available from Simpson Paper Mill in Pomona, California. The thickness of the sheet of paper 160 is preferably between seven and twenty mils. A pattern of sheet portions or cards 164 are defined on the sheet by a pattern of lines. The sheet portions or cards 164 are preferably rectangular, but other shapes are within the scope of the invention. For example, the sheet 160 can be 8 ½ x 11 inches and each of the portions 164 can have the dimensions of a traditional business card (e.g., two by three and a half inches).

At least one of the defining lines is a "substantial-cut" or partial cut line 170, cut along its entire length, substantially but not all of the way through the paper 160; that is, cut from the top surface 174 of the paper approximately ninety percent the way through towards the bottom surface 178. This is shown in the enlarged view in FIG. 6. A preferred embodiment has the substantial-cut line(s) 170 extending 9.3 to 9.5 mil through a ten mil thick cardstock. Alternatively, they can extend between seventy and ninety-eight percent therethrough. The substantial-cut lines 170 can be formed by trimming wheels (rotary knives), by die cutting, laser scoring, or chemical or acid etching.

A preferred pattern of defining lines is best shown in FIG. 4. It includes four parallel lengthwise lines 180, 182, 184, 186 extending the length of the sheet 160 and defining two parallel columns 190, 192 with waste strips 196, 198 at the outer edges and a center waste strip 202 between the columns. Spaced parallel widthwise lines 208, 212 extend the widths of the columns 190, 192, but not beyond them. As can be understood from FIG. 4, the lengthwise lines 180, 182, 184, 186 define the left and right edges of the sheet portions or cards 164 and the widthwise lines 208, 212 from the top and bottom edges thereof.

The lengthwise lines 180, 182, 184, 186 are each substantial-cut lines 170 as disclosed above. And the widthwise lines 208, 212 are preferably each through-cut lines formed by die cutting, as best shown in FIG. 5 at 220, extending the entire distance through the sheet 160 along their entire lengths; that is, between and engaging adjacent of the substantial-cut lengthwise lines. The through-cut lines 220 define a perfectly smooth edge and thus are preferred over microperforated or substantial-cut widthwise

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lines. They also do not require any separating effort. None of the through-cut lines 220 engages any edge of the sheet 160. If they did, the sheet 160 would be likely to be torn along the line. The pattern of substantial-cut and full-cut lines still provides the card stock sheet 160 with sufficient integrity to reliably pass through the printer 134 without breaking apart.

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After the sheet assembly 130 has passed through the printer 134 and the desired indicia 140 printed thereon, the individual cards (or printed media) 164 are separated by tearing or pulling along the four substantial-cut lines. Of course, no further separation is required on the through-cut lines. The side and center waste strips 196, 198, 202 can then be disposed of, as can the end margin strips 240, 242, 244, 246 at the ends of both of the columns 190, 192.

From the foregoing detailed description, it will be evident that there are a number of changes, adaptations and modifications of the present invention which come within the province of those skilled in the art. For example, instead of paper the sheets can be laminated sheets, such as plastic and card stock, and instead of rectangular, the cards (or printed or printable media) can be triangular, circular or any other usable shape. However, it is intended that all such variations not departing from the spirit of the invention be considered as within the scope thereof as limited solely by the claims appended hereto.